

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A laser-based device comprising:

a VCSEL-type laser having an active side and a passive side opposite the active side; and

a photodetector unit on the passive side, the photodetector unit comprising

an absorbing region located so as to receive leakage photons exiting the laser through the passive side, and

a Schottky contact having a first portion abutting the absorbing region and through which a current, caused by absorption of the leakage photons in the absorbing, can be measured and a substrate located between a second portion of the Schottky contact and the absorbing region.

2. (original) The device of claim 1 further comprising:

a substrate abutting the active side.

3. (original) The device of claim 2 wherein the substrate comprises:

an access way over at least a portion of the active side so that, when the laser emits light through the active side, the emission will pass through the access way.

4. (original) The device of claim 1 wherein the absorbing region comprises a substrate on which the laser was grown.

5. (cancelled)

6. (original) The device of claim 1 wherein the laser is a top emitting laser.

7. (original) The device of claim 1 wherein the laser is a bottom emitting laser.
8. (original) The device of one of claims 1 through 7 further comprising: an electronic circuit chip hybridized to the laser.
9. (original) The device of claim 8 further comprising: a planarizing dielectric located between at least a portion of the electronic circuit chip and the laser.
10. (original) The device of one of claims 1 through 7 wherein the active side comprises an active side mirror and wherein the active side mirror is doped so as to be p-type.
11. (original) The device of one of claims 1 through 7 wherein the active side comprises an active side mirror and wherein the active side mirror is doped so as to be n-type.
12. (original) The device of claim 1 wherein the absorbing region is a semi-insulating material.
13. (original) The device of claim 12 wherein the semi-insulating material comprises: Gallium Arsenide.
14. (original) The device of claim 12 wherein the semi-insulating material is less than two microns in thickness.
15. (original) The device of claim 12 wherein the semi-insulating material is about 1 micron in thickness.

16. (original) The device of one of claims 1 through 7 wherein the active side comprises an active side mirror and wherein the active side mirror comprises at least one of a carbon dopant, a beryllium dopant or a zinc dopant.

17. (original) The device of claim 16 wherein the active side mirror comprises:
AluminumGalliumArsenide.

18. (original) The device of one of claims 1 through 7 wherein the passive side comprises a passive side mirror and wherein the passive side mirror comprises at least one of a silicon dopant or a tellurium dopant.

19. (original) The device of claim 18 wherein the active side mirror comprises:
AluminumGalliumArsenide.

Claims 20-24 (cancelled)